



1. PURPOSE AND SCOPE

This document contains the minimum quality requirements for a Supplier Inspection and Test System of parts supplied to DELTAWING MANUFACTURING COMPANY, LLC (DWM) on purchase orders or other contract documentation. This document shall govern the Supplier's Inspection and Test System for products produced as "build-to-print" for DWM. DWM is a well established company involved in the design, development and manufacture of racing cars, engines and composite components for automotive, aerospace, and industrial markets. DWM also acts as agents and authorized distributors to a number of manufacturers. DWM's primary mode of operations is as follows:

- Providers in the manufacture and distribution of racing cars, engines and composite components for automotive, aerospace, and industrial markets..
- Technical advice and assistance on specific customer applications.
- Provide two levels of traceability to suit customer requirements.
- Source Lot Traceable – documentation tracing back to original manufacturers of lot or batch of product.
- Without Source Lot Traceable - only traced back to source of supply.

The Quality management System operating at DWM is designed at a minimum to meet the requirements of AS9100C . Operating to these systems is achieved by adhering to a fully documented Quality management System in the form of a Quality Manual and set of related Procedures. Manual and Procedures Distribution Controlled copies are issued to:

- Copy No 1 – Quality Management Representative (General copy) Managing Director
- Uncontrolled copies are issued to customers as and when required. They will be marked UNCONTROLLED and will not be updated when changes occur.
- Confidentiality of Quality Manual and Procedures as applicable.
- The Quality Manual and Procedures remain the property of DWM. No part of the Quality System can be copied without the written consent of the Managing Director or the Quality Management Representative.

2. APPLICABILITY

This document shall apply (and is incorporated by reference) to any contract with a supplier (including any subcontractors or materialmen of a supplier) performing the work or supplying products to DWM. In the event of a conflict between the contents of this document and any supplier documents, the terms of this document for the referenced Procurement, shall apply unless specifically agreed to the contrary in writing by DWM.

3. DWM AUDITS, SURVEYS & INSPECTIONS

As applicable, prior to the award of a procurement contract, a supplier quality assurance evaluation may be scheduled to appraise the supplier's ability to comply with the requirements of DWM's quality assurance program. Upon completion of the initial evaluation, the supplier will be notified in writing of their acceptability or those areas of nonconformance. Any documented non-conformances shall be resolved to DWM's quality assurance's satisfaction prior to any award of an approved status.



DWM reserves the right to conduct audits, evaluations and inspections of the supplier's quality inspection and test system and products to be furnished to DWM. These audits are in addition to the primary suppliers approved quality assurance system and does not relieve the primary supplier of the responsibility to maintain a system for control of quality products and services from their subcontractors. Failure to cooperate with this policy shall be deemed a material breach of contract and entitle DWM to the remedies set forth, including the termination of supplier.

4. DWM REPRESENTATION

DWM may assign representatives from quality assurance, purchasing, engineering, production groups or other personnel as required to the supplier's facility during its performance under any DWM contract. These representatives will only be assigned to the supplier's facility in connection with the contract. The supplier will be required to provide these assigned personnel with reasonable facilities and equipment required to conduct their business within the supplier's facility. Failure to cooperate with this policy shall be deemed a material breach of contract and entitle DWM to the remedies set forth, including the termination of supplier. For the purposes of this section 4 "DWM Representatives" shall include, without limitation, any end user or customer utilizing the products produced by supplier.

5. GOVERNMENT REPRESENTATION

DWM suppliers shall permit access and provide facilities and assistance, as necessary, to government representatives to enable them, initially and periodically, to evaluate suppliers facilities and to review procedural controls, records, process controls and products at all times and places during manufacture, in accordance with government regulations and applicable specifications. Failure to cooperate with this policy shall be deemed a material breach of contract and entitle DWM to the remedies set forth, including the termination of supplier. For the purposes of this section 5 "government representatives" shall include, without limitation, any regulator, governing body or board having jurisdiction or oversight over the scope of suppliers work.

6. REQUIREMENTS – MANAGEMENT RESPONSIBILITY

As applicable, the Suppliers management must establish, document and maintain a quality program in the form of a procedure manual, which clearly defines quality objectives and commitment for an inspection and test system compliant with the requirements of this agreement. The quality manual shall assign/define specific authorities, duties and responsibilities in addition to defining all functions and activities that have a direct impact on product quality. The manual shall depict the company's organization in chart form, and a current copy shall be made available to DWM and Government representatives upon request, and to all employees whose responsibilities include quality system compliance.

The quality inspection and test system in place at the time of the evaluation or audit approval shall be the system considered acceptable.

The Supplier's management shall establish a procedure for the approval and maintenance of its subcontractors. A list of all approved subcontractors shall be established, maintained and available to personnel, primarily those with quality, procurement, and shipping receiving functions. In addition, the supplier shall regularly evaluate the quality performance of its



subcontractors. A procedure for corrective actions shall be established for system and product non-conformances from a sub contractor.

DWM has itself established, documented and maintains a quality management system that at a minimum meets the requirement of AS9100C. The Supplier is expected to establish procedures in conformance with those established by DWM as hereinafter provided. DWM's quality mission is to exceed the needs and expectations of our customers by providing world class winning solutions. We commit to complying with the requirements of our Quality Management System while continually improving its effectiveness through technology, training and employee empowerment. Our Quality Management System is designed to provide a framework for establishing and reviewing quality objectives. Supplier's adherence to these aims and requirements should be the minimum standard supplier is expected to maintain. DWM, itself has:

- identified the processes needed to supply a quality product, by applying the quality management system throughout the company
- determined the sequence, acceptance criteria/s and interaction of key processes ensuring the methods needed to control these processes are effective
- ensured that adequate resources and information is available to support the operation and monitoring of these processes
- monitored, measured and analyzed these processes
- implemented actions necessary to achieve planned results and continual improvement on defined processes

Where DWM chooses to subcontract any process, full control is maintained over the use of suppliers as detailed in the Purchasing procedure.

Generally, the documented quality management system incorporates records required by AS9100C, which include:

- a quality policy statement and quality objectives
- a quality manual
- operating and control procedures
- forms/documents to ensure effective planning and control of processes.

DWM Quality manual

The quality manual established and maintained by DWM includes:

- the scope of the quality management system, including justification for any exclusions (if applicable)
- a reference to relevant procedures
- the interaction between processes

The structure of the quality system is as follows:

Level 1

- The first level is the Quality Manual This describes DWM's Quality Assurance Policy and the overall organization and responsibilities for quality. .



Level 2

- The second level consists of the Quality System Procedures (QSP's) and related documents that detail how the Manual is to be implemented making reference to industry norms as applicable. Note - In some cases the Quality Manual fully describes how the relevant section of AS9100C is addressed therefore a working Procedure is not deemed necessary.

DWM Control of Documents

The quality system (Levels 1 and 2) are controlled documents and are issued and updated, ensuring:

- documents are approved for adequacy prior to issue
- documents are reviewed, updated as necessary and re-approved prior to re-issue
- documents are identified to their current issue status
- the current issues of relevant documents are available at points of use
- all documents remain legible, readily identifiable and retrievable
- relevant documents of external origin are identified and that their distribution is controlled as appropriate.
- obsolete documents are removed and archived or destroyed as appropriate.

DWM Control of quality records

The quality system is fully documented on hard copy record (paper-form) or as part of the computer system/s and shall be controlled. Quality records are referenced at the end of each procedure DWM maintains records generated within the quality management system for defined periods. Where contractually specified, the relevant records are available for evaluation by a customer for any additional period agreed.

DWM MANAGEMENT COMMITMENT

The Managing Director (Top Management) of DWM is responsible for and committed to the effective operation of the quality management system. He/She has taken responsibility for:

- communicating the importance of meeting customer, regulatory and legal requirements
- establishing the quality policy and quality objectives
- conducting management review meetings
- ensuring the availability of necessary resources (plant and personnel).

DWM Customer focus

Top management ensures that customer needs and expectation/s are determined, converted into requirements and fulfilled or exceeded with the aim of enhancing customer satisfaction. These processes are documented in the Quality System Procedures.

DWM Quality policy

The Quality Policy has been brought to the attention of all company personnel, and is strategically displayed. Top Management has developed the Quality Policy ensuring it:

- is appropriate to the purpose of the company
- includes a commitment to meeting requirements and to continual improvement
- provides a framework for establishing and reviewing quality objectives
- is communicated and understood at appropriate levels in the company



- is reviewed for continuing suitability, during Management Review Meetings.

DWM has a fully documented Quality Management System, which as a minimum meets the requirements of AS9100C .

The Quality Management System ensures that DWM meets or exceeds its customer's requirements and expectations, by ensuring conformance to specification at all times. The manual and procedures ensures risks associated with projects are analyzed ensuring reliability and maintainability of products is achieved. Key checkpoints during contract review and verification activities ensure customer requirements are met.

The Managing Director ensures that all personnel are responsible for the effective and economical running of the system. They make sure the policy is established, understood, implemented and maintained at all levels within the organization.

DWM's commitment goals are: total customer satisfaction and continuous improvement by operating their Quality Management System in the most economic and effective way.

The quality policy is reviewed for continuing suitability against defined quality objectives (KPI) ensuring it is appropriate to DWM's operational activities.

DWM PLANNING

DWM Quality Objectives

Top Management have established quality objectives for relevant functions within DWM. The quality objectives are measurable and consistent with the quality policy including the commitment to continual improvement. Quality objectives include those needed to meet requirements of products, services and related processes. These objectives are defined through DWM Quality System Procedures.

DWM Quality management system planning

The Quality Manual and Procedures are DWM's Quality Plan. Any customer requirements or new processes not covered by these will be met by introducing new controlling documentation through the Documentation Control System. Quality Plans will ensure that the necessary controls, resources and skills are made available to meet the customer's order requirements. Personnel are responsible for requesting Quality Plans through the Managing Director or the Quality Management Representative.

Note - Quality plans may only be applicable to a specific contract and will be filed with the order on completion.

Anyone may request changes to the Quality System. This may include changes due to customer's demands such as new: working practices, acquisitions, processes, equipment, resources, skills or procedures.

RESPONSIBILITY, AUTHORITY AND COMMUNICATION

Responsibility and authority

The Managing Director-Quality Management Representative (Quality Rep) has overall responsibility for the Quality System. The Quality Rep is responsible for the Quality Systems



implementation and running and has full backing from the Managing Director. As part of his/her responsibilities the Quality Rep will:

- ensure that adequate processes are in place to effectively control the Quality System in accordance with AS9100C
- implement effective preventative action to prevent the reoccurrence of any service relating to the product supplied, processes and the quality system
- identify and record any deviations from the defined specifications
- initiate and propose possible solutions to the relevant personnel
- check the effectiveness of corrective and preventative actions
- ensure that adequate controls are in place to ensure that the specification is met until the non-conformance is corrected
- report the effectiveness and performance of the quality system to Top management during Management Review Meetings.

Other responsibilities are detailed in the relevant section of the Quality Manual and / or related Procedures.

Management Organization Chart - The order of positions below is not necessarily reflective of the levels of responsibility.

Management representative

The Managing Director has appointed Quality Rep, it is his/her responsibility to ensure that the Quality System is established, implemented, maintained and reviewed for possible improvements, this also includes the promotion of awareness of customer requirements to the relevant company personnel. The Managing Director will deputize for the Quality Rep in their absence.

Internal communication

The structure and operation of the Quality System Procedures ensures that there is effective communication between the various levels and functions regarding the processes of the quality management system. Internal communication will include meetings, emails, phone conversations and memorandums displayed on notice boards.

Management review

General

The quality management system is required at planned intervals by Management to ensure continuing suitability, adequacy and effectiveness and to provide an opportunity to review quality policy and quality objectives.

Review input and output

An overall review of the Quality System is carried out quarterly, following the agenda, as detailed below. These meetings are chaired by the Quality Rep who will call upon key personnel as required. Minutes of the review will detail persons actioned and target dates to complete those actions by. The meeting's agenda will review the following agenda, which will include current performance and improvement opportunities related to the following:

- review of actions taken from previous Management reviews
- results of internal and external audits



- status of preventive and corrective actions (internal, customer and supplier)
- customer satisfaction, complaints and feedback
- changes to 'legislation or regulations'
- resource needs and effectiveness (vehicles, personnel and training)
- process performance and product conformance
- infrastructure and work environment
- review of quality policy and objectives for suitability
- changes that could affect or improve the quality management system and its processes, including a review of suppliers performance
- any other business and date of next meeting.

DWM - RESOURCE MANAGEMENT

DWM Provision of resources

Management have responsibility for identifying and providing adequate resources to cover the operational activities of each function within this quality management system. These resources are provided in a timely manner to:

- implement and improve processes of the quality management system
- enhance customer satisfaction by meeting customer requirements.

This will be carried out by the effective running of the Quality System and controls exercised during Management Review Meetings.

DWM Human resources

General

Responsibilities are assigned to personnel having an affect directly or indirectly on the service provided, who have been judged as competent on the basis of applicable education, training, skills and experience.

Competence, awareness and training

Identification of training needs, the provision of relevant training and review of needs is carried out by systematic evaluations ensuring personnel are competent in their relevant duties.

Infrastructure

DWM has identified, provided and maintained the infrastructure needed to achieve conformity of products, services and related processes including:

- buildings, workspace and associated utilities
- process equipment, hardware and software, as applicable
- supporting services, such as transport, communication and information systems.

These requirements are managed and maintained under continuous audit and reviewed as part of the quality management system. Maintenance of equipment is carried out on a routine basis; ensuring suitable subcontractors are used as required.

Work environment.

DWM has determined the human, physical and environmental factors of the work environment needed to achieve conformity of products, services and related processes. These requirements



are managed and maintained under continuous audit and reviewed as part of the quality management system.

7. Contract Review

As applicable, the supplier shall establish and maintain documented procedures for the review of customer contracts. Before accepting a contract or amendment, the supplier shall assure the following are assessed:

- a) A review of the customer's contract to determine that the quality requirements are clearly defined and documented.
- b) Assure the availability of capacity and capability to meet the contract requirements to include any subcontracted operations.

8. Design Control

Design changes shall be approved by DWM Engineering in accordance with the requirements of the contract.

9. Product Realization System

The supplier shall develop and maintain a Product Realization System that defines the requirements to produce, process, inspect and/or test the product or service. This system is to be approved by DWM.

10. Document and Data Control

The supplier shall control and maintain required documents and data to assure only approved, released, and pertinent revisions are available. These documents may be in electronic format. The supplier shall have as part of the system a process to ensure the timely review, distribution, implementation and maintenance of the approved data. Approved Data includes but, is not limited to drawings, standards, specifications, planning and any revisions. The supplier shall maintain a record of change incorporation.

11. Purchasing

As applicable, the Supplier shall have procedures to ensure that all procured items and raw materials meet specified customer requirements. In addition the procedures shall make mandatory as a minimum a Certificate of Compliance from all subcontractors, which shall include the following:

- Part Number with Description – or – Description of Service
- Serial Number, if applicable
- Manufacturer's Or Processor's Certification (if applicable)
- Supplier's Name and Address
- Name and Signature of Suppliers Quality Control Representative
- A Statement of conformity

Typical Statement:

"It is certified that item(s) _____ comply with annotated specifications and that the inspection/test records are maintained and available upon request."

Procurement documents shall clearly define the product ordered, including the applicable drawings and specifications with appropriate revision levels, processing requirements and other relevant data.



Procured products shall be verified for conformance upon receipt through a Receiving Inspection or by a Supplier Representative at the subcontractor's facility prior to shipment. A formal system for subcontractor approvals may be used if acceptable to DWM Quality Assurance, All necessary provisions shall be made for First Article Inspections, where applicable.

The supplier shall include right-of-entry provisions in any subcontract. These provisions shall grant the supplier, its customers and regulatory agencies appropriate access to verify the quality of work, records, materials and processes.

The supplier shall ensure the use of customer approved requested Special Process sources when necessary. Supplier subcontracted products and services shall also be reviewed for the use of customer approved/requested Special Process sources.

12. Control of Customer-Supplied Product

As applicable, the supplier shall establish and maintain documented procedures for the control, verification, storage, and maintenance of customer supplied products.

The supplier is to maintain a current inventory list and provide it when requested by DWM. Information to be included in the inventory status is also to be determined by the buyer due to the uniqueness of products.

13. Product Identification/Traceability

As applicable, the supplier shall establish and maintain documented procedures for the identification and traceability of the product upon receipt, and through all manufacturing operations, to delivery. This may be by product or lot using a suitable means that will be maintained through all processes.

The final product shall be identified per the engineering requirements and will bear an acceptance stamp. If the engineering does not reference a method of identification, a method must be approved by DWM for use with the appropriate sub-class.

14. Process Control

The supplier must establish a documented system defining and controlling production, manufacturing, assembly and installation processes to meet the requirements of applicable drawings, specifications and purchase orders. A method to document and control split order quantities must be included. The supplier shall prepare, maintain and monitor manufacturing plans, work instructions, route cards, and travelers.

As applicable, the supplier must use special process facility sources listed in DWM's "Approved Process Sources" for items manufactured to DWM Drawings. DWM approved suppliers with "Delegated Duty" status may use their own approved sources or those listed in the DWM "Approved Vendor List."

Special Processes (e.g. heat treat, non-destructive testing (NDT), Plating's, Coatings, Welding, Special Cleaning) performed or subcontracted by the supplier require certification in accordance



with the applicable specification. Suppliers are responsible to assure such processes are in accordance with the applicable specifications.

Suppliers using sub-contracted processes must maintain objective evidence of the capabilities and performance of sub-tier facilities. DWM reserves the right to disqualify those facilities considered unsatisfactory.

DWM Material Process Specifications or any other controlling specification called out on a contract may not be substituted without written approval granted by DWM Materials and Process Engineering. Requests for such approvals must be processed through DWM procurement.

15. Inspection and Testing

As applicable, the supplier shall establish and maintain documented procedures for inspection and test activities that verify the products compliance with the approved data.

The supplier shall inspect the product to ensure it conforms to the required purchase order, contract, drawing and/or specifications.

When certified test reports are utilized to accept material, the supplier shall assure the data in the reports is acceptable to the applicable specifications.

The supplier shall perform the final inspections and verify that all required inspections and tests have been completed.

The supplier shall provide a process for First Article Inspection to include inspection, verification and documentation of the new or changed article. Any changes in the product, tooling or process used to manufacture the product shall constitute a First Article Inspection requirement.

The First Article Inspection documentation shall be maintained for seven years and shall include a list of characteristics required by the design data and any required tolerances, the actual results, any required testing and the actual results.

(Note: Guidance for the performance of First Article Inspection is provided in the SAE AS9102A. First Article Inspection.)

16. Control of Inspection, Measuring & Test Equipment

As applicable, the supplier shall establish and maintain documented procedures to control the equipment calibration system. The system requires all measuring and test equipment used for product or process acceptance be calibrated at defined intervals based upon type of equipment, frequency of usage and calibration history of out-of-tolerance conditions. The system shall provide for the control, calibration, and recall of all inspection, measuring, and test equipment.

The system shall provide for the use of equipment of the required degree of accuracy in order to assure the characteristic being measured is in conformance, (Note: This equates to a minimum of four times more accurate than the measured characteristic's requirement, where possible.)



The system must also assure that calibrations are performed in a stable environment and allows for the "soaking" of the equipment in that environment to assure that it is not influenced by any temperature, humidity, vibration or cleanliness differentials.

The calibration system shall also address recall of product in the case of significantly out-of-tolerance measuring equipment found during calibration. This should also include the ability to assess the amount of uncertainty contributed to significantly out-of-tolerance equipment.

Calibrations shall be traceable to a nationally or internationally recognized standard such as the National Institute of Standards and Technology (NIST). There shall be records of the equipment denoting its status through calibration. The records shall reflect the required tolerances, actual measurements, adjustments, equipment acceptance and actions taken on out-of-tolerance equipment. The equipment should either reflect the calibration status or be traceable, by a control or serial number, to an acceptable calibration record.

17. Inspection & Test Status

As applicable, the supplier shall establish and maintain a documented process for the identification of a product's inspection or test status.

The process shall provide for the identification by suitable means in regard to conformance or non-conformance of the product as inspected or tested to the design data requirements.

The process shall provide for the traceability of the inspection or test to the individual performing the acceptance.

18. Control of Non-Conforming Material-Products

As applicable, the supplier shall establish and maintain documented procedures for the identification, documentation, segregation, evaluation and disposition of nonconforming materials-products. The procedures shall have provisions for notification of all interested parties.

The supplier procedures shall clearly define the acceptable terminology used to represent the status of the nonconforming product following disposition.

NOTES: A disposition of "Rework" or "Repair" may only be used if the nonconformity does not result in a departure from customer specified requirements. A "Reworked" or "Repaired" product shall be re-inspected in accordance with documented instructions.

A product designated as "Regrade" (Example: product made from an alternate material or manufacturing process) must be accompanied by a change in identification to preclude its original intended use. Adequate test reports and certifications shall reflect the exact deviation that prompted the "Regrade" designation. Dispositions of "Regrade" on products that are of a customer's design shall be prohibited, unless concession is made in writing by DWM.

A supplier designed product that is controlled by means of a customer specification may be dispositioned by the supplier as "Use-As-Is" or "Repair", provided the nonconformity does not result in a departure from a customer-specified requirement, or affect form, fit, function, reliability or maintainability. Records that support a transaction of this nature must be retained and available upon request.



A supplier shall not return previously rejected material to DWM as: "Returned as Received" or "No Cause for Rejection" without written authorization from DWM Purchasing and Quality Assurance. In all cases when returning material as "Returned as Received," a statement is required on the Shipping document defining why the material is being returned as received. A copy of the DWM authorization shall accompany the shipping document.

When a Return Material Authorization Form (RMA) form has been issued by DWM, the RNC number shall be referenced on all accompanying documentation.

Materials that are dispositioned as "Scrap" shall be conspicuously and permanently identified and segregated from all production material. The material shall then be physically destroyed to preclude its use. All corresponding transactions are logged and auditable.

The Supplier's documented procedures shall provide for the prompt notification of all customers, when it is discovered that a discrepant product has already been delivered. Notification shall include a description of the discrepancy, parts and serial numbers affected, lot numbers, delivered quantities and ship dates.

19. Corrective and Preventive Action (C&PA)

As applicable, the supplier shall establish and maintain documented procedures for corrective action for all products, manufacturing and test operations supplied to DWM. Each type of nonconformance shall be documented, investigated, and the appropriate corrective – preventative action implemented.

- A. The supplier Shall have a method for positive identification, recall, and replacement of parts in the event of a nonconformance.
- B. Corrective-Preventive Action Items to be Addressed:
 - The discrepancy, part number(s), part name, serial numbers
 - Cause of the discrepancy
 - Root Cause Analysis (RCA)
 - Any interim fixes to the system to assure conforming products
 - Extent of the discrepancy, with justification
 - The final system or product changes that were implemented to prevent re-occurrence

To maintain effective control of quality throughout all phases of the program, the supplier shall be responsible for performing analysis of rejection data forwarded by DWM Quality Assurance via the DWM Quality Supplier Corrective Action Report (SCAR) and/or other Quality Assurance initiated correspondence. Failure to respond in writing to such correspondence within the prescribed time period will have a direct impact on the supplier's overall quality standing.

20. Handling and Storage – Including Preservation, Packaging and Delivery

As applicable, the supplier shall establish and maintain documented procedures for the handling and storage of products and materials to prevent damage or deterioration.



21. Control of Quality Records

As applicable, the supplier shall establish and maintain documented procedures for identification, access and storage of quality records. Records may be in any form, such as hard copy or electronic media. Records shall be secured to prevent unauthorized access.

Quality records shall be maintained to verify conformance to specified requirements and the effective operation of the quality system. Quality records from a Subcontractor shall be included.

All quality records shall be legible and shall be retained for seven (7) years or to a customer specified timeline and the supplier is responsible to assure a system to prevent damage, deterioration and loss.

Quality records shall be made available to DWM representatives, Customers and Regulatory authority upon request.

22. Internal Quality Audit

As applicable, the supplier shall establish and maintain a procedure to periodically audit the effectiveness of the Quality Assurance and Configuration Control Systems as they relate to DWM contract requirements.

The audits shall be performed by Personnel autonomous to the area or function being audited.

23. Training

Personnel performing specific assigned functions shall be qualified by the supplier or by means acceptable to DWM Quality Assurance. Basis for this qualification may be appropriate education, formal or on-the-job training and/or previous experience. Records of training effecting decisions on product quality shall be maintained.

24. Statistical Techniques

As applicable, statistical methods of control shall be utilized as required by the contract. When used, a mutually agreed upon plan for reporting the data will be established, and become part of the contract. Acceptance sampling shall have a customer-approved plan that provides for a zero acceptance of defects in the lot.

Implementation and application of statistical control methods shall be documented and the agreed upon documentation, forwarded to the customer.